

WHAT IS CLAIMED IS:

1. A head for a power toothbrush comprising:
an elongated support member, and
a plurality of bristles extending from the support member, at least some of the bristles having different heights, the bristles being arranged so that their heights are symmetric, in a non-translatable mirror image symmetry, about two planes of symmetry.
2. The toothbrush head of claim 1 wherein the bristles have different lengths, measured from a top surface of the support member.
3. The toothbrush head of claim 1 wherein the bristles extend the same length from a top surface of the support member, and the top surface is contoured so that the bristles have different heights as measured from a horizontal plane taken through the lowest point on the top surface.
4. A head for a power toothbrush comprising:
an elongated support member, and
a plurality of tufts of bristles extending from the support member, the tufts of bristles having at least three different heights, the tufts being arranged so that their tips define a rounded contour.
5. The toothbrush head of claim 4 wherein the tufts of bristles have different lengths, measured from a top surface of the support member.
6. The toothbrush head of claim 4 wherein the tufts of bristles extend the same length from a top surface of the support member, and the top surface is contoured so that the bristles have different heights as measured from a horizontal plane taken through the lowest point on the top surface.
7. The toothbrush head of claim 1 wherein the bristles are arranged in tufts.

8. The toothbrush head of claim 1 wherein the two planes of symmetry are arranged about a central axis of the brush head.

9. The toothbrush head of claim 1 wherein the bristles are arranged in an array and tips of the bristles define a continuously curved surface.

10. The toothbrush head of claim 1 wherein the two planes of symmetry intersect in the vicinity of the center of the elongated support member.

11. The toothbrush head of claim 1 or 4 wherein the head is configured for use on a power toothbrush having a rotationally oscillating motion.

12. The toothbrush head of claim 4 wherein the tufts of bristles have at least four different heights.

13. The toothbrush head of claim 4 wherein the rounded contour is lowest adjacent a pivot point of the head.

14. The toothbrush head of claim 1 or 4 wherein a top surface of the support member has an overall surface area of from about 170 to 200 mm².

15. The toothbrush head of claim 1 or 4 further comprising one or more elastomeric elements.

16. The toothbrush head of claim 4 wherein the tufts are arranged so that their heights are symmetric, in a non-translatable mirror image symmetry, about two planes of symmetry.

17. The toothbrush head of claim 1 or 4 wherein the height of the tallest bristles is from about 20 to 50% greater than the height of the shortest bristles.

18. The toothbrush head of claim 1 or 4 wherein a top surface of the support member has a length of about 14 to 19 mm.

19. The toothbrush head of claim 18 wherein the top surface has a length of about 16 to 17 mm.

20. The toothbrush head of claim 1 or 4 wherein a top surface of the support member has a width of about 12 to 15 mm.

21. The toothbrush head of claim 20 wherein the top surface has a width of about 13 to 14 mm.

22. The toothbrush head of claim 1 or 4 wherein a top surface of the support member has an aspect ratio (length/width) of about 1.2 to 1.

23. The toothbrush head of claim 1 or 4 wherein a top surface of the support member has a shape selected from the group consisting of oval, ellipse, rounded diamond, and rounded rectangle.

24. The toothbrush head of claim 3 or 6 wherein the top surface has a concave shape.

25. A power toothbrush comprising
a handle, and

extending from the handle, a head including an elongated support member, and a plurality of bristles extending from the support member, at least some of the bristles having different heights, the bristles being arranged so that their heights are symmetric, in a non-translatable mirror image symmetry, about two planes of symmetry.

26. The toothbrush of claim 25 wherein the bristles have different lengths, measured from a top surface of the support member.

27. The toothbrush of claim 25 wherein the bristles extend the same length from a top surface of the support member, and the top surface is contoured so that the bristles have different heights as measured from a horizontal plane taken through the lowest point on the top surface.

28. A power toothbrush comprising:
a handle, and
extending from the handle, a head including an elongated support member, and a plurality of tufts of bristles extending from the support member, the tufts of bristles having at least three different heights, the tufts being arranged so that their tips define a rounded contour.

29. The toothbrush of claim 28 wherein the tufts of bristles have different lengths, measured from a top surface of the support member.

30. The toothbrush of claim 28 wherein the tufts of bristles extend the same length from a top surface of the support member, and the top surface is contoured so that the bristles have different heights as measured from a horizontal plane taken through the lowest point on the top surface.

31. The toothbrush of claim 25 or 28 further comprising a drive mechanism configured to drive the head in a rotationally oscillating motion.

32. A head for a power toothbrush comprising:
an elongated support member, and
a plurality of bristles extending from the support member, at least some of the bristles having different heights, the heights of the bristles being selected to provide a bristle tip contour that allows substantially all of the bristle tips to contact the dentition simultaneously during brushing.

33. A method of brushing teeth comprising:

contacting the teeth with bristles of a power toothbrush, the power toothbrush including a head having an elongated support member, and a plurality of bristles extending from the support member, at least some of the bristles having different heights, the bristles being arranged so that their heights are symmetric, in a non-translatable mirror image symmetry, about two planes of symmetry.

34. A method of brushing teeth comprising:

contacting the teeth with bristles of a power toothbrush, the power toothbrush including a head having an elongated support member, and a plurality of tufts of bristles extending from the support member, the tufts of bristles having at least three different heights, the tufts being arranged so that their tips define a rounded contour.